

## CLAIMS

1. A measuring system adapted for providing a measurement of an optical parameter of an optical device under test – DUT -, comprising:  
  
a measuring instrument adapted to perform the measurement and to  
5 provide a measurement signal comprising a plurality of values of the measured optical parameter of the DUT over the time,  
  
wherein the measuring system is adapted to receive a temperature signal comprising a plurality of values of the measured temperature of the DUT over the time, and to provide an output signal wherein values of the  
10 measured temperature are associated to such values of the measured optical parameter of the DUT that correspond in time.
2. The measuring system according to claim 1, further comprising at least one of: a temperature sensor, and at least one interface adapted for coupling such a temperature sensor to the measuring system, wherein  
15 the temperature sensor is provided for measuring the temperature of the DUT.
3. The measuring system according to claim 2, wherein the temperature sensor is coupled directly or via the interface to the measuring instrument and is adapted for providing the measuring instrument with a temperature  
20 signal correlating with the temperature of the DUT.
4. The measuring system according to claim 1, wherein the measuring instrument is adapted for providing at least one of the following features:  
  
providing a simultaneous real-time measurement of the optical parameter and the temperature of the DUT;  
  
25 providing a temporally synchronized real-time measurement of the optical parameter and the temperature of the DUT;

providing a definite association between the measured temperatures and the measured parameters;

associating each measured parameter or each group of simultaneously measured parameters to a definite measured temperature;

- 5        generating a measurement protocol listing values for the DUT's temperature associated to the measured parameters and at least one of the group comprising: the measured parameters, a measuring time associated to the measured parameters, and a measuring number associated to the measured parameters.

- 10      5.    The measuring system according to claim 1, wherein

the measuring system comprises a heating and/or cooling device and/or at least one interface for connecting such a heating and/or cooling device to the measuring system,

- 15        the heating and/or cooling device is provided for an active control of the temperature of the DUT,

- 20        the measurement instrument is coupled directly or via the interface to the heating and/or cooling device and is adapted for controlling the heating and/or cooling device such that the heating and/or cooling device prior to the measurement adjusts a predetermined temperature at the DUT and during the measurement observes the predetermined temperature at the DUT.

6.    The measuring system according to claim 1, wherein

the measuring system comprises a DUT holder providing a support for the DUT,

- 25        the measuring system comprises a hood provided for covering the DUT

holder including the supported DUT,

the hood has a thermal insulating design and/or is made of a thermal insulating material.

- 5        7.    The measuring system according to claim 2, comprising at least one of the following features:

the temperature sensor is attached to or integrated in the DUT;

the temperature sensor is arranged at or integrated in the DUT holder;

the temperature sensor is adapted for a remote and non-contact temperature measurement.

- 10      8.    A method for providing a measurement of an optical parameter of an optical device under test – DUT –, comprising the steps of:

providing a measurement signal, said measurement signal comprising a plurality of values of the measured optical parameter of the DUT over the time,

- 15        providing a temperature signal, said temperature signal comprising a plurality of values of the measured temperature of the DUT over the time,

deriving an output signal, wherein values of the measured temperature are associated to such values of the measured optical parameter of the DUT that correspond in time.

- 20      9.    The method according to claim 8, wherein the step of measuring of the optical parameter and the temperature of the DUT is performed as at least one of: a simultaneous real-time measurement, and a temporally synchronized real-time measurement.

10.    The method according to claim 8, wherein the output signal provides a

definite association between the measured temperatures and the measured parameters.

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11. The method according to claim 8, wherein each measured parameter or each group of simultaneously measured parameters is associated to a definite measured temperature.
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12. The method according to claim 8, further comprising a step of generating a measurement protocol, said measurement protocol listing values for the DUT's temperature associated to the measured parameters and at least one of the group comprising: the measured parameters, a measuring time associated to the measured parameters, and a measuring number associated to the measured parameters.